

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JULIA MACLACHLAN

Appeal 2007-1385
Application 09/997,347
Technology Center 1700

Decided: October 17, 2007

Before CATHERINE Q. TIMM, JEFFREY T. SMITH, and
LINDA M. GAUDETTE, *Administrative Patent Judges*.

TIMM, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant appeals under 35 U.S.C. § 134(a) from the Examiner's decision rejecting claims 23-38. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

I. BACKGROUND

The invention relates to a method of removing a selected portion of a hydrophobic coating from a vehicle glazing such as an automotive windshield and subsequently adhering an item such as a gasket to the uncoated surface (Specification 1). The removal is accomplished by irradiating the coating with UV radiation. Claim 23 is illustrative of the subject matter on appeal:

23. A method of adhering an item to an area of a surface of a vehicle glazing comprising:

providing a vehicle glazing having an exterior surface exposed to the exterior of a vehicle, the exterior surface having a hydrophobic coating disposed thereon;

irradiating the hydrophobic coating on the area of the exterior surface of the vehicle glazing with UV radiation having a dominant wavelength in the range of 100 to 200 nm, thus substantially removing the hydrophobic coating disposed on the area of the exterior surface of the vehicle glazing; and

adhering the item to the area of the exterior surface of the vehicle glazing.

The Examiner relies on the following prior art references to show unpatentability:

Curtze	US 4,543,283	Sep. 24, 1985
Volkman	US 4,931,125	Jun. 5, 1990
Franz	US 4,983,459	Jan. 8, 1991
Tweadey, II	US 5,131,967	Jul. 21, 1992
Teranishi	US 5,556,667	Sep. 17, 1996
Kizaki	US 5,763,892	Jun. 9, 1998
Anderson (as translated)	FR 2,793,889	Nov. 24, 2000
Yoshinori (as translated)	JP 2001-146439	May 29, 2001
Van Der Putten	US 6,316,059 B1	Nov. 13, 2001

The Examiner rejects claims 26 and 34 as indefinite under 35 U.S.C. § 112, ¶ 2.

The Examiner rejects the claims under 35 U.S.C. § 103(a) as follows:

Claims 23, 24, and 26-33 are rejected over:

- a) Yoshinori in view of Curtze and Teranishi;
- e) Teranishi in view of Curtze and further in view of Yoshinori and/or Van Der Putten;
- i) Anderson in view of Curtze and further in view of Yoshinori and/or Van Der Putten;
- m) Franz in view of Curtze and further in view of Yoshinori and/or Van Der Putten.¹

To reject the other claims, the Examiner relies upon the above combinations of prior art and adds additional references. To reject claim 25, the Examiner adds Kizaki; to reject claims 34, 35, 37, and 38, the Examiner adds Tweadey and Volkmann; to reject claim 36, the Examiner adds Tweadey, Volkmann, and Kizaki.²

Appellant requests review of the obviousness rejections.

II. DISCUSSION

The rejection of claims 26 and 34 as indefinite under 35 U.S.C. § 112, ¶ 2 is not listed by Appellant as a rejection to be reviewed on appeal (Br. 4-8). As Appellant does not contest this rejection, we summarily sustain it.

¹ The designations “a),” “e),” “i),” and “m)” match the designations for the rejections used by Appellants in the Brief (Br. 4-20).

² Appellants list these rejections as rejections b-d, f-h, j-l, and n-p.

Appellant argues the § 103(a) rejections of claims 23, 24, and 26-33 as a group. While the Examiner added references to reject other claims, Appellants do not argue those rejections separately. Therefore, we select a single claim, claim 23, to represent the issues on appeal with respect to all the § 103(a) rejections.

The Examiner finds that Yoshinori describes a method of removing selected portions of a hydrophobic coating from vehicle glazing by UV irradiation, and relies upon Teranishi as showing that the exterior surface of the glazing must be free of the hydrophobic coating to allow bonding of the window to window gaskets and trim. The Examiner further relies upon Curtze to show the well-known aspect of coating removal and bonding to trim, and Anderson and Franz to show the well-known aspect of coating automotive glazing with hydrophobic coatings (Answer 6-24). Each of the rejections is grounded on the conclusion that it would have been obvious to one of ordinary skill in the art to remove the hydrophobic coating on the periphery of automotive glazing as taught by Yoshinori before the molding gasket of the automotive window frame was adhered to the window glazing as it was known in the art that the hydrophobic coating impedes bonding (*id.*).

Appellant contends that the Examiner has resorted to improper hindsight reasoning in analyzing the patentability of the claims, and that this is indicated by the number of references relied upon to reject the claims (Br. 11-12). Appellant further contends that there is no suggestion or motivation to modify the teachings of the references to arrive at the claimed invention (Br. 12-20).

The dispositive issue on appeal arising from the contentions of Appellant and the Examiner is: Has Appellant overcome the rejections by showing that the evidence does not support the Examiner's finding of reasons to combine the cited references? We answer in the negative.

A preponderance of the evidence of record supports the following Findings of Facts (FF):

1. It was known in the automotive window glass/glazing art at the time of the invention to apply a hydrophobic coating to the exterior of the glass panel, the purpose of which was to make the window water-repellant (Teranishi, col. 1, ll. 13-35; Franz, col. 3, ll. 17-28; Anderson 17, second full para. and para bridging pp. 18-19).
2. According to Teranishi:

Moldings are bonded to the peripheral edges of automobile window glass panels or the like with an adhesive such as a urethane sealant. A water-repellent film has a poor affinity for such an adhesive. For applying an adhesive to an automobile window glass panel coated with a water-repellent film, it has been customary to apply a masking tape to a peripheral edge of the glass panel, apply a coating solution to the glass panel, thereafter remove the masking tape, and then apply the adhesive to the unmasked edge region.

(Teranishi, col. 1, ll. 48-56). But the masking method creates a raised portion (103a shown in Fig. 4) which tends to produce optical interference, making the film edge too conspicuous (Teranishi, col. 1, l. 57 to col. 2, l. 4).

3. Yoshinori identifies other problems associated with the prior art processes of masking the area where the coating was not desired:

Namely, these methods have poor productivity and are not good enough for wide practical applications. In the method

involving masking of the water-repellent-treatment-free area before water-repellent treatment, even after removal of the masking, effects of the adhesive component of the masking material still remain on the substrate surface, resulting in the undesired effects of a large water contact angle.

(Yoshinori ¶ 0005).

4. Yoshinori describes a process which is an improvement over other processes including the masking process. The improved method is a method of coating the entire window surface and then selectively removing the coating were unwanted by irradiating the areas to be removed with UV light. The process is said to be very simple, and with high productivity (Yoshinori ¶ 0007).

“On appeal to the Board, an applicant can overcome a rejection by showing insufficient evidence of prima facie obviousness or by rebutting the prima facie case with evidence of secondary indicia of nonobviousness.” *In re Kahn*, 441 F.3d 977, 985-86, 78 USPQ2d 1329, 1335 (Fed. Cir. 2006) (emphasis omitted).

“Section 103 forbids issuance of a patent when ‘the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.’” *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1734, 82 USPQ2d 1385, 1391 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, (3) the level of skill in the art, and (4) where in evidence, so-called secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18, 148 USPQ 459, 467 (1966). *See also, KSR*, 127 S. Ct. at

1734, 82 USPQ2d at 1391 (“While the sequence of these questions might be reordered in any particular case, the [*Graham*] factors continue to define the inquiry that controls.”).

Applying the preceding legal principles to the Factual Findings in the record of this appeal, we determine that the Examiner has established a prima facie case of obviousness that has not been rebutted by Appellant.

The prior art applied by the Examiner shows that applying a hydrophobic coating on the exterior surface of vehicle glazing was known in the art (FF 1) as was adhering the peripheral edges of these coated window panels to moldings (FF 2). There was a known problem: The hydrophobic water-repellant film has poor affinity to the adhesive (FF 3). The art solved this problem by masking the edge of the glass panel so that it would not be coated, but this masking presented further problems (FF 3-4). Yoshinori describes a UV removal process that overcomes several problems with the masking technique and results in a window panel with the coating removed in select areas where it is not wanted. The suggestion to use the UV removal process of Yoshnori in the process of forming a window panel to be adhered to moldings around the edge of the panel of automotive glass flows from the teachings of the references themselves, mainly from the teachings of the problems in the art and their solutions. “[A]ny need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed.” *KSR*, 127 S. Ct. at 1742, 82 USPQ2d at 1397.

III. CONCLUSION

A preponderance of the evidence supports the Examiner's finding of a reason to combine. Appellant has not overcome the rejections.

IV. DECISION

The decision of the Examiner is affirmed.

V. TIME PERIOD FOR RESPONSE

No time period for taking any subsequent action in connection with this appeal maybe extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

clj

MARSHALL & MELHORN
FOUR SEAGATE, EIGHT FLOOR
TOLEDO, OH 43604